## **Amendments to the Claims:**

The following claims will replace all prior versions of the claims in this application (in the unlikely event that no claims follow herein, the previously pending claims will remain):

## 1. (Currently Amended) A compound represented by the following Formula 1:

$$Z = \begin{bmatrix} A''_n \\ B''_m \\ R'' \end{bmatrix}$$

wherein Z is

n, m, q and r independently represent integers from zero to 4 provided that  $n + m \le 4$  and q  $+ r \le 4$ ; p and s independently represent integers from zero to 5 provided that  $p + s \le 5$ ; a represents a double bond which may be present or absent; when present, the double bond may be in the E or Z configuration and, when absent, the <u>any</u> resulting stereocenter may have the R- or S- configuration;

R" independently represents a hydrogen atom; linear or branched  $C_1$ - $C_{20}$  alkyl; linear or branched  $C_2$ - $C_{20}$  alkenyl;  $-CO_2Z'$ ;  $-CO_2R'''$ ,  $-NH_2$ , -NHR''',  $-NR_2'''$ , -OH, -OR''', a halogen atom; optionally substituted linear or branched  $C_1$ - $C_{20}$  alkyl or optionally substituted linear or branched  $C_2$ - $C_{20}$  alkenyl;

R"' independently represents linear or branched  $C_1$ - $C_{20}$  alkyl; linear or branched  $C_2$ - $C_{20}$  alkenyl;  $-(CH_2)_x$ -Ar—where x represents an integer from 1 to 6 and Ar represents aryl;

Z' represents a hydrogen atom or a pharmaceutically acceptable counterion;

A and A' each independently represent a hydrogen atom;  $C_1$ - $C_{20}$  acylamino;  $C_1$ - $C_{20}$  acyloxy;  $C_1$ - $C_{20}$  alkanoyl;  $C_1$ - $C_{20}$  alkoxycarbonyl;  $C_1$ - $C_{20}$  alkoxy;  $C_1$ - $C_{20}$  alkylamino;  $C_1$ - $C_{20}$  alkylamino; carboxyl; cyano; halo; or hydroxy;

B and B' each independently represent  $C_2$ - $C_{20}$  alkenoyl; aroyl, aralkanoyl; nitro; optionally substituted, linear or branched  $C_1$ - $C_{20}$  alkyl; or optionally substituted linear or branched  $C_2$ - $C_{20}$  alkenyl;

or A and B jointly or A' and B' jointly independently represent a methylenedioxy or ethylenedioxy group; and

X and X' independently represent >NH, >NR", -O-, or -S-.

- 2. (Cancelled).
- 3. (Currently Amended) A pharmaceutical composition comprising: a therapeutically effective amount of a compound represented by the following formula 1:

$$Z = \begin{bmatrix} A''_n \\ B''_m \end{bmatrix} X$$

$$R''$$

wherein Z is

n, m, q and r independently represent integers from zero to 4 provided that  $n + m \le 4$  and q  $+ r \le 4$ ; p and s independently represent integers from zero to 5 provided that  $p + s \le 5$ ; a represents a double bond which may be present or absent; when present, the double bond may be in the E or Z configuration and, when absent, the any resulting stereocenter may have the R- or S- configuration;

R" independently represents a hydrogen atom; linear or branched  $C_1$ - $C_{20}$  alkyl; linear or branched  $C_2$ - $C_{20}$  alkenyl;  $-CO_2Z'$ ;  $-CO_2R'''$ ,  $-NH_2$ , -NHR''',  $-NR_2'''$ , -OH, -OR''', a halogen atom; optionally substituted linear or branched  $C_1$ - $C_{20}$  alkyl or optionally substituted linear or branched  $C_2$ - $C_{20}$  alkenyl;

R" independently represents linear or branched  $C_1$ - $C_{20}$  alkyl; linear or branched  $C_2$ - $C_{20}$  alkenyl;  $-(CH_2)_x$ -Ar,—where x represents an integer from 1 to 6 and Ar represents aryl;

Z' represents a hydrogen atom or a pharmaceutically acceptable counterion;

A and A' each independently represent a hydrogen atom; C<sub>1</sub>-C<sub>20</sub> acylamino; C<sub>1</sub>-C<sub>20</sub> acyloxy; C<sub>1</sub>-C<sub>20</sub> alkanoyl; C<sub>1</sub>-C<sub>20</sub> alkoxycarbonyl; C<sub>1</sub>-C<sub>20</sub> alkoxy; C<sub>1</sub>-C<sub>20</sub> alkylamino; C<sub>1</sub>-C<sub>20</sub> alkylamino; C<sub>1</sub>-C<sub>20</sub> alkylamino; carboxyl; cyano; halo; or hydroxy;

B and B' each independently represent  $C_2$ - $C_{20}$  alkenoyl; aroyl, aralkanoyl; nitro; optionally substituted, linear or branched  $C_1$ - $C_{20}$  alkyl; or optionally substituted linear or branched  $C_2$ - $C_{20}$  alkenyl;

or A and B jointly or A' and B' jointly independently represent a methylenedioxy or ethylenedioxy group; and

X and X' independently represent >NH, >NR", -O-, or -S-;

in a physiologically acceptable carrier.

- 4. (Cancelled).
- 5. (Withdrawn and Previously Presented) A method of treating diabetes comprising: administering to a subject suffering from a diabetic condition, a therapeutically effective amount of a compound represented by the following formula 1:

$$Z = \begin{bmatrix} A^{"}_{n} \\ B^{"}_{m} \end{bmatrix} X$$

$$\begin{bmatrix} 1 \end{bmatrix}$$

wherein Z is

n, m, q and r independently represent integers from zero to 4 provided that  $n + m \le 4$  and  $q + r \le 4$ ; p and s independently represent integers from zero to 5 provided that  $p + s \le 5$ ; a represents a double bond which may be present or absent; when present, the double bond may be in the E or Z configuration and, when absent, the resulting stereocenter may have the R- or S- configuration;

R" independently represents a hydrogen atom; linear or branched C<sub>1</sub>-C<sub>20</sub> alkyl; linear or branched C<sub>2</sub>-C<sub>20</sub> alkenyl; -CO<sub>2</sub>Z'; -CO<sub>2</sub>R", -NH<sub>2</sub>, -NHR", -NR<sub>2</sub>", -OH, -OR", a halogen

atom; optionally substituted linear or branched  $C_1$ - $C_{20}$  alkyl or optionally substituted linear or branched  $C_2$ - $C_{20}$  alkenyl;

R"' independently represents linear or branched  $C_1$ - $C_{20}$  alkyl; linear or branched  $C_2$ - $C_{20}$  alkenyl; –(CH<sub>2</sub>)<sub>x</sub>-Ar<sub> $\tau$ </sub>-where x represents an integer from 1 to 6 and Ar represents aryl;

Z' represents a hydrogen atom or a pharmaceutically acceptable counterion;

A and A' each independently represent a hydrogen atom;  $C_1$ - $C_{20}$  acylamino;  $C_1$ - $C_{20}$  acyloxy;  $C_1$ - $C_{20}$  alkoxycarbonyl;  $C_1$ - $C_{20}$  alkoxy;  $C_1$ - $C_{20}$  alkylamino;  $C_1$ - $C_{20}$  alkylamino; carboxyl; cyano; halo; or hydroxy;

B and B' each independently represent  $C_2$ - $C_{20}$  alkenoyl; aroyl, aralkanoyl; nitro; optionally substituted, linear or branched  $C_1$ - $C_{20}$  alkyl; or optionally substituted linear or branched  $C_2$ - $C_{20}$  alkenyl;

or A and B jointly or A' and B' jointly independently represent a methylenedioxy or ethylenedioxy group; and

X and X' independently represent >NH, >NR", -O-, or -S-;

in a physiologically acceptable carrier.

- 6. (Cancelled).
- 7. (Withdrawn and Previously Presented) A method of treating inflammation or inflammatory disease comprising:

administering to a subject suffering from such condition, a therapeutically effective amount of a compound represented by the following formula 1:

$$Z = \begin{bmatrix} A''_n & A''_n$$

wherein Z is

n, m, q and r independently represent integers from zero to 4 provided that  $n + m \le 4$  and  $q + r \le 4$ ; p and s independently represent integers from zero to 5 provided that  $p + s \le 5$ ; a represents a double bond which may be present or absent; when present, the double bond may be in the E or Z configuration and, when absent, the resulting stereocenter may have the R- or S- configuration;

R" independently represents a hydrogen atom; linear or branched  $C_1$ - $C_{20}$  alkyl; linear or branched  $C_2$ - $C_{20}$  alkenyl;  $-CO_2Z'$ ;  $-CO_2R'''$ ,  $-NH_2$ , -NHR''',  $-NR_2'''$ , -OH, -OR''', a halogen atom; optionally substituted linear or branched  $C_1$ - $C_{20}$  alkyl or optionally substituted linear or branched  $C_2$ - $C_{20}$  alkenyl;

R''' independently represents linear or branched  $C_1$ - $C_{20}$  alkyl; linear or branched  $C_2$ - $C_{20}$  alkenyl; -(CH<sub>2</sub>)<sub>x</sub>-Ar,-where x represents an integer from 1 to 6 and Ar represents aryl;

Z' represents a hydrogen atom or a pharmaceutically acceptable counterion;

A and A' each independently represent a hydrogen atom;  $C_1$ - $C_{20}$  acylamino;  $C_1$ - $C_{20}$  acyloxy;  $C_1$ - $C_{20}$  alkanoyl;  $C_1$ - $C_{20}$  alkoxycarbonyl;  $C_1$ - $C_{20}$  alkoxy;  $C_1$ - $C_{20}$  alkylamino;  $C_1$ - $C_{20}$  alkylamino; carboxyl; cyano; halo; or hydroxy;

B and B' each independently represent  $C_2$ - $C_{20}$  alkenoyl; aroyl, aralkanoyl; nitro; optionally substituted, linear or branched  $C_1$ - $C_{20}$  alkyl; or optionally substituted linear or branched  $C_2$ - $C_{20}$  alkenyl;

or A and B jointly or A' and B' jointly independently represent a methylenedioxy or ethylenedioxy group; and

X and X' independently represent >NH, >NR", -O-, or -S-;

in a physiologically acceptable carrier.

- 8. (Cancelled).
- 9. (Withdrawn and Previously Presented) A method of treating immunological disease comprising:

administering to a subject suffering from an immunological disease, a therapeutically effective amount of a compound represented by the following formula 1:

$$Z = \begin{bmatrix} A''_n & A''_n$$

wherein Z is

n, m, q and r independently represent integers from zero to 4 provided that  $n + m \le 4$  and  $q + r \le 4$ ; p and s independently represent integers from zero to 5 provided that  $p + s \le 5$ ; a represents a double bond which may be present or absent; when present, the double bond may be in the E or Z configuration and, when absent, the resulting stereocenter may have the R- or S- configuration;

R" independently represents a hydrogen atom; linear or branched  $C_1$ - $C_{20}$  alkyl; linear or branched  $C_2$ - $C_{20}$  alkenyl; - $CO_2$ Z"; - $CO_2$ R"", -NH2, -NHR"", -NR2"", -OH, -OR"", a halogen atom; optionally substituted linear or branched  $C_1$ - $C_{20}$  alkyl or optionally substituted linear or branched  $C_2$ - $C_{20}$  alkenyl;

R" independently represents linear or branched  $C_1$ - $C_{20}$  alkyl; linear or branched  $C_2$ - $C_{20}$  alkenyl;  $-(CH_2)_x$ -Ar, where x represents an integer from 1 to 6 and Ar represents aryl;

Z' represents a hydrogen atom or a pharmaceutically acceptable counterion;

A and A' each independently represent a hydrogen atom;  $C_1$ - $C_{20}$  acylamino;  $C_1$ - $C_{20}$  acyloxy;  $C_1$ - $C_{20}$  alkanoyl;  $C_1$ - $C_{20}$  alkoxycarbonyl;  $C_1$ - $C_{20}$  alkoxy;  $C_1$ - $C_{20}$  alkylamino;  $C_1$ - $C_{20}$  alkylamino; carboxyl; cyano; halo; or hydroxy;

B and B' each independently represent  $C_2$ - $C_{20}$  alkenoyl; aroyl, aralkanoyl; nitro; optionally substituted, linear or branched  $C_1$ - $C_{20}$  alkyl; or optionally substituted linear or branched  $C_2$ - $C_{20}$  alkenyl;

or A and B jointly or A' and B' jointly independently represent a methylenedioxy or ethylenedioxy group; and

X and X' independently represent >NH, >NR", -O-, or -S-;

in a physiologically acceptable carrier.

- 10. (Cancelled).
- 11. (Withdrawn and Previously Presented) A method of inhibiting the activity of TNF-alpha, IL-1, IL-6 or COX-2 which comprises administering to a host in need of such inhibition an effective amount of a compound according to claim 1.
- 12. (Withdrawn and Previously Presented) The method of inhibiting the undesired action of cytokines or cyclooxygenase which comprises administering to a host in need of such inhibition an effective amount of a compound according to claim 1.
- 13. (Withdrawn and Previously Presented) The method of treating a disease mediated by cytokines or cyclooxygenase which comprises administering to a host in need of such treatment a compound according to claim 1.
- 14. (Withdrawn and Previously Presented) The method of treating insulin resistance which comprises administering to a host in need of such treatment an effective amount of a compound according to claim 1.
- 15. (Withdrawn and Previously Presented) The method of treating hyperlipidemia which comprises administering to a host in need of such treatment an effective amount of a compound according to claim 1.
- 16. (Withdrawn and Previously Presented) The method of treating coronary heart disease which comprises administering to a host in need of such treatment an effective amount of a compound according to claim 1.
- 17. (Withdrawn and Previously Presented) The method of treating multiple sclerosis which comprises administering to a host in need of such treatment an effective amount of a compound according to claim 1.

- 18. (Withdrawn and Previously Presented) The method of treating cancer which comprises administering to a host in need of such treatment an effective amount of a compound according to claim 1.
- 19. (Previously Presented) A compound according to claim 1 selected from the group consisting of:
  - 5-[4-(4'-methoxybiphenyl-3-yloxy)-benzylidene]-thiazolidine-2,4-dione,
  - 5-[4-(4'-methoxybiphenyl-3-yloxy)-benzyl]-thiazolidine-2,4-dione,
  - 5-[4-(2',4'-dimethoxybiphenyl-3-yloxy)-benzylidene]-thiazolidine-2,4-dione, and
  - 5-[4-(2',4'-dimethoxybiphenyl-3-yloxy)-benzyl]-thiazolidine-2,4-dione.
- 20. (Previously Presented) A pharmaceutical composition comprising a therapeutically effective amount of a compound selected from the group consisting of:
  - 5-[4-(4'-methoxybiphenyl-3-yloxy)-benzylidene]-thiazolidine-2,4-dione;
  - 5-[4-(4'-methoxybiphenyl-3-yloxy)-benzyl]-thiazolidine-2,4-dione;
  - 5-[4-(2',4'-dimethoxybiphenyl-3-yloxy)-benzylidene]-thiazolidine-2,4-dione; and
- 5-[4-(2',4'-Dimethoxybiphenyl-3-yloxy)-benzyl]-thiazolidine-2,4-dione, together with a physiologically acceptable carrier therefore.
- 21. (Withdrawn and Previously Presented) A method for treating diabetes comprising: co-administering an effective amount of a compound of claim 1 and an agent selected from the group consisting of:

insulin or an insulin mimetic,

- a sulfonylurea or other insulin secretagogue,
- a thiazolidinedione.
- a fibrate or other PPAR-alpha agonist,
- a PPAR-delta agonist,
- a biguanide,
- a statin or other hydroxymethylglutaryl (HMG) CoA reductase inhibitor,
- an alpha-glucosidase inhibitor,
- a bile-acid binding resin,

apoA1,

niacin,

probucol,

and nicotinic acid.

- 22. (Withdrawn and Previously Presented) A method for treating inflammatory or immunological disease, comprising: co-administering an effective amount of a compound of claim 1 and an agent selected from the group consisting of:
  - a non-steroidal anti-inflammatory drug (NSAID),
  - a cyclooxygenase-2 inhibitor,
  - a corticosteroid or other immunosuppressive agent,
  - a disease-modifying antirheumatic drug (DMARD),
  - a TNF-alpha inhibitor,
  - other cytokine inhibitor,
  - other immune modulating agent,
  - and a narcotic agent.
- 23-24. (Cancelled).
- 25. (Previously Presented) A compound according to claim 1, wherein X represents -S-; and X' represents >NH.
- 26. (Previously Presented) A compound according to claim 25, wherein A independently is  $C_1$ - $C_{20}$  alkoxy and p is 1 or 2.
- 27. (Previously Presented) A compound according to claim 26, wherein m, n, q, r and s are zero.
- 28. (Previously Presented) A compound according to claim 27, wherein the bond identified by a is a single bond.
- 29. (Previously Presented) A compound according to claim 28, wherein R" represents a hydrogen atom.
- 30. (New) A compound of the chemical name 5-[4-(2',4'-Dimethoxybiphenyl-3-yloxy)-benzyl]-thiazolidine-2,4-dione.